

# ENERGY ANALYSIS AND POLICY, GRADUATE/ PROFESSIONAL CERTIFICATE

## REQUIREMENTS

Each EAP student must complete five courses (13 credits), including an introductory course, a capstone course, a professional skills seminar, and one course from each of two categories: *Energy Analysis* and *Energy Policy*. Courses in the *Energy Analysis* category involve quantitative analysis of the technical and economic factors that shape society's use of energy resources. Courses in the *Energy Policy* category involve the social, political, and environmental factors that underly decision-making around energy choices.

Some courses listed in the *Energy Analysis* category may have some overlap with the *Energy Policy* category, and vice versa. Students who wish to use a course for the opposite category that it is listed in should submit a written request to the EAP Academic Coordinator or Faculty Chair. Students should provide a course syllabus and a written justification for why the course should qualify for the other category in the context of their overall course of study, with the EAP Chair making the final decision on whether to accept the request.

The following courses are offered regularly, though other courses (with approval by the EAP faculty program committee) may fulfill one of the requirements below (see note under Other Qualifying Courses (p. 2)).

Code	Title	Credits
<b>Required Courses</b>		
ENVIR ST/ PUB AFFR/ URB R PL 809	Introduction to Energy Analysis and Policy	3
ENVIR ST/ PUB AFFR/ URB R PL 810	Energy Analysis and Policy Capstone	3
<b>Seminar</b>		<b>1</b>
ENVIR ST 909	Professional Skills in Energy Analysis and Policy	
or		
ENVIR ST 900	Seminar (Topic: Prof Skills in Energy Analysis and Policy)	
<b>Energy Analysis</b>		<b>3</b>
Choose one of the following:		
A A E/ECON 371	Energy, Resources and Economics	
A A E/ENVIR ST/ POP HLTH/ PUB AFFR 881	Benefit-Cost Analysis	
AGROECOL/ AGRONOMY/ ENVIR ST 724	Agroecosystems and Global Change	

ENVIR ST/  
A A E/ECON/  
URB R PL 671

Energy Economics

BSE 460 Biorefining: Energy and Products from Renewable Resources

CBE 512 Energy Technologies and Sustainability

CIV ENGR/  
G L E 421 Environmental Sustainability Engineering

CIV ENGR/  
G L E 535 Wind Energy Balance-of-Plant Design

E C E 356 Electric Power Processing for Alternative Energy Systems

E C E 427 Electric Power Systems

ENVIR ST/  
BSE 367 Renewable Energy Systems

E P D 731 Energy Efficiency in Buildings

M E 466 Air Pollution Effects, Measurements and Control

or CIV ENGR 42 Air Pollution Effects, Measurement and Control

M E 469 Internal Combustion Engines

M E/CBE 567 Solar Energy Technology

N E 571 Economic and Environmental Aspects of Nuclear Energy

## Energy Policy 3

Choose one of the following:

ENVIR ST 349 Climate Change Governance

ENVIR ST/  
ATM OCN 355 Introduction to Air Quality

ENVIR ST/  
GEOG 439 US Environmental Policy and Regulation

ENVIR ST/  
ECON/POLI SCI/  
URB R PL 449 Government and Natural Resources

ENVIR ST/  
POP HLTH 471 Introduction to Environmental Health

ENVIR ST/  
POP HLTH 502 Air Pollution and Human Health

ENVIR ST/  
POP HLTH 739 Climate Change, Human and Planetary Health<sup>1</sup>

ENVIR ST/  
POLI SCI/  
PUB AFFR 866 Global Environmental Governance

GEOSCI/  
ENVIR ST 411 Energy Resources

LAW 848 Introduction to Environmental Law

POP HLTH/  
M&ENVTOX 789 Principles of Environmental Health: A Systems Thinking Approach

URB R PL 551 Climate Action Planning: Sustainable Transportation

## Total Credits 13

1

Because this is a 2-credit course, students selecting this course option are required to take an additional 1-credit course in consultation with the certificate coordinator.

## OTHER QUALIFYING COURSES

Because the scheduling of the preceding courses is coordinated with the needs of their home departments, EAP cannot guarantee that specific courses will always be offered at specific times or rotations. Each semester, the EAP program faculty will consider other qualifying courses for the upcoming semester that fulfill one of the categories above. Once approved, the EAP Academic Coordinator will distribute a list of course offerings for the upcoming semester to students in the EAP program.

## COURSE SUBSTITUTIONS

Students may propose course substitutions by contacting the Academic Coordinator or the Faculty Chair. The EAP Chair makes the final decision. Students should provide a course syllabus and a letter of endorsement from the faculty member teaching the course, preferably before the start of the course. The substitution proposal will be considered based upon the following criteria:

1. the extent to which the course content is devoted to energy
2. the rigor of methodology applied to the course material
3. the context of the class with respect to the student's study plan